CLAIMS

1. A heat exchanger comprising two headers arranged as spaced apart from each other, and a plurality of heat exchange tubes arranged in parallel between the two headers and having opposite ends joined to the respective headers,

at least one of the headers having interior divided into two spaces by a flow dividing resistance plate, the heat exchange tubes being joined to said at least one header so as to communicate with one of the spaces, the resistance plate having a refrigerant passing hole formed therein, the header having the resistance plate being provided on an outer surface thereof with an identification mark for discriminating the position of the refrigerant passing hole.

2. A heat exchanger according to claim 1 wherein the flow dividing resistance plate has a plurality of refrigerant passing holes formed therein and different in shape and/or size, and the header having the resistance plate is provided on the outer surface thereof with identification marks representing the shapes and/or sizes of the respective holes in addition to the positions of the respective holes.

3. A heat exchanger according to claim 2 wherein the identification marks are provided respectively at positions corresponding to the respective holes, and are different in accordance with the shapes and/or sizes of the holes.

4. A heat exchanger according to claim 1 wherein the identification mark comprises a recess formed in the header outer surface.

5. A heat exchanger according to claim 1 wherein the

identification mark comprises a projection formed on the header outer surface.

6. A heat exchanger according to claim 1 which comprises a heat exchange core composed of tube groups in the form of a plurality of rows arranged forward or rearward and each comprising a plurality of heat exchange tubes arranged at a spacing, a refrigerant inlet header positioned toward one end of each heat exchange tube and disposed at a front side, the inlet header having joined thereto the heat exchange tubes of the tube group of at least one row, a refrigerant outlet header disposed toward said one end of each heat exchange tube and in the rear of the inlet header, the outlet header having joined thereto the heat exchange tubes of the tube group of at least one row, a refrigerant inflow header disposed toward the other end of each heat exchanger and having joined thereto the heat exchange tubes joined to the inlet header, and a refrigerant outflow header disposed toward said other end of each heat exchange tube and in the rear of the inflow header, the outflow header having joined thereto the heat exchange tubes joined to the outlet header, the outflow header being in communication with the inflow header, the outlet header having interior divided into two spaces by the flow dividing resistance plate.

7. A heat exchanger according to claim 6 wherein the inlet header and the outlet header are integral, and the inlet header and the outlet header are provided by dividing interior of one header tank by a partition wall.

8. A heat exchanger according to claim 7 wherein the header

tank comprises a first member having the heat exchange tubes joined thereto, and a second member brazed to the first member at a portion thereof opposite to the heat exchange tubes, the partition wall and the resistance plate being formed integrally with the second member, the identification mark being provided on an outer surface of the second member.

9. A process for fabricating a heat exchanger according to claim 8 which includes extruding the second member having the partition wall and the resistance plate, and subjecting the extruded second member to press work to form the refrigerant passing hole in the resistance plate and provide the identification mark on the outer surface of the second member at the same time.

10. A refrigeration cycle comprising a compressor, a condenser and an evaporator, the evaporator being a heat exchanger according to any one of claims 1 to 8.

11. A vehicle having installed therein a refrigeration cycle according to claim 10 as an air conditioner.

12. A header tank for use in heat exchangers which has a front portion and a rear portion which are asymmetric in cross sectional contour.

13. A header tank for use in heat exchangers according to claim 12 wherein at least an outer portion of the header tank is made of an extrudate member, and the extrudate member is integrally provided with a ridge positioned on an outer surface of the member away from a center thereof with respect to the forward or rearward direction and extending longitudinally thereof, the extrudate member having a front

portion and a rear portion which are symmetric except the ridge in cross sectional contour.

14. A header tank for use in heat exchangers according to claim 13 which comprises a first member to be joined to heat exchange tubes, and a second member to be brazed to the first member at a portion thereof opposite to the heat exchange tubes, the second member being the extrudate member having the ridge.

15. A heat exchanger comprising a first and a second header tank arranged as spaced apart from each other, and a plurality of heat exchange tubes arranged in parallel between the two header tanks and having opposite ends joined to the respective header tanks, at least one of the header tanks having a front portion and a rear portion which are asymmetric in cross sectional contour.

16. A heat exchanger according to claim 15 wherein the header tank having the front portion and the rear portion which are asymmetric in cross sectional contour has at least an outer portion made of an extrudate member, and the extrudate member is integrally provided with a ridge positioned on an outer surface of the member away from a center thereof with respect to the forward or rearward direction and extending longitudinally thereof, the extrudate member having a front portion and a rear portion which are symmetric except the ridge in cross sectional contour.

17. A heat exchanger according to claim 16 wherein the header tank having the front portion and the rear portion which are asymmetric in cross sectional contour comprises a first

member having the heat exchange tubes joined thereto, and a second member brazed to the first member at a portion thereof opposite to the heat exchange tubes, the second member being the extrudate member having the ridge.

18. A heat exchanger according to claim 15 which comprises a first and a second header tank arranged as spaced apart from each other, and a plurality of heat exchange tubes arranged in parallel between the two header tanks and having opposite ends joined to the respective header tanks, the first header tank having interior divided by a partition wall into a front and a rear portion to provide a refrigerant inlet header and a refrigerant outlet header respectively, the second header tank having interior divided by a partition wall into a front and a rear portion to provide two intermediate headers, some of the heat exchange tubes being arranged in parallel between the inlet header and one of the intermediate headers and having opposite ends joined to the respective headers, the other heat exchange tubes being arranged in parallel between the outlet header and the other intermediate header and having opposite ends joined to the respective headers.

19. A heat exchanger according to claim 18 wherein each of the header tanks comprises a first member having the heat exchange tubes joined thereto and a second member made of an extrudate and brazed to the first member at a portion thereof opposite to the heat exchange tubes, and the second member of at least one of the header tanks is integrally provided with a ridge positioned on an outer surface of the second member away from a center thereof with respect to the forward or rearward

direction and extending longitudinally thereof, the second member having a front portion and a rear portion which are symmetric except the ridge in cross sectional contour.

20. A heat exchanger according to claim 19 wherein the ridge is provided on the outer surface of the second member of the first header tank, and the outlet header has interior partitioned into two spaces by a flow dividing resistance plate, said other heat exchange tubes being joined to the outlet header in communication with one of the spaces, the resistance plate having a refrigerant passing hole formed therein, the partition wall and the resistance plate being formed integrally with the second member.

21. A process for fabricating a heat exchanger according to claim 15 which is characterized by including assembling the header tanks as held by a jig and the heat exchange tubes, the jig having a recessed portion for an outer portion of each header tank to fit in.

22. A process for fabricating a heat exchanger according to claim 16 or 19 which is characterized by including assembling the header tanks as held by a jig and the heat exchange tubes, the jig having a recessed portion for an outer portion of each header tank to fit in, the recessed portion for at least one of the header tanks having a groove formed in an inner peripheral surface thereof and extending longitudinally thereof for the ridge to fit in.

23. A refrigeration cycle comprising a compressor, a condenser and an evaporator, the evaporator being a heat exchanger according to any one of claims 15 to 20.